PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Item# 12 (Rev.1)
Agenda ID #21724

ENERGY DIVISION **RESOLUTION E-5283**
August 10, 2023

R E S O L U T I O N

Resolution E-5283. San Diego Gas & Electric Tranche 2 Mid-Term Reliability Contracts.

PROPOSED OUTCOME:

- Approves four San Diego Gas & Electric mid-term reliability contracts and related costs for a total of 379.5 – 402 megawatts of nameplate capacity expected to begin deliveries on June 1, 2025 and April 1, 2026.

SAFETY CONSIDERATIONS:

- The owners and sellers of the projects are responsible for the safe construction and operation of their facilities in compliance with all applicable laws, including safety regulations.
- The contracts include a requirement that the seller follow Accepted Electrical Practices, which are defined as those practices, methods, applicable codes and acts engaged in or approved by a significant portion of the electric power industry during the relevant time period, or any of the practices, methods and acts which, in exercise of reasonable judgment in light of the facts known at the time a decision is made, could have been expected to accomplish a desired result at reasonable cost consistent with good business practices, reliability, safety and expedition.

ESTIMATED COST:

- Contract costs are confidential at this time.

By Advice Letter 4189-E, Filed on April 14, 2023.

SUMMARY

This Resolution approves four mid-term reliability (MTR) contracts for 379.5 – 402 megawatts (MW) of nameplate capacity. San Diego Gas & Electric (SDG&E) procured these resources to help meet its MTR requirements. These contracts include one as-available energy and tolling agreement contract (solar/storage hybrid), one as-available energy solar contract, and two tolling agreement storage contracts.

BACKGROUND

On June 24, 2021, the Commission under its Integrated Resource Planning (IRP) authority adopted Decision (D.) 21-06-035 requiring load serving entities (LSEs) to procure at least their share of 11,500 MW of September net qualifying capacity (NQC), with at least 2,000 MW online by August 1, 2023; an additional 6,000 MW online by June 1, 2024; an additional 1,500 MW online by June 1, 2025; and an additional 2,000 MW of long lead time resources online by June 1, 2026, for MTR purposes. This procurement requirement is inclusive of a minimum of 2,500 MW of zero-emitting capacity required to be online by 2025, to replace capacity retiring at Diablo Canyon Power Plant ("Diablo Canyon").

Pursuant to the D.21-06-035, SDG&E's share of this MTR procurement requirement was 63 MW online by August 1, 2023; 188 MW online by June 1, 2024; 47 MW online by June 1, 2025; and 63 MW of long lead time resources by 2026. In March 2022, SDG&E filed Tier 2 Advice Letter (AL) 3967-E with the Commission, requesting to adjust its MTR capacity requirements to reflect mutually agreed-upon reallocations with San Diego Community Power, a community choice aggregator in SDG&E's service territory. AL 3967-E was approved by the Commission's Energy Division in June 2022.

On February 28, 2023, the Commission adopted D.23-02-040, which ordered supplemental MTR procurement of 2,000 MW for 2026 and 2,000 MW for 2027, and changed the online date for long lead time resources from June 1, 2026 to June 1, 2028. With the mutually agreed-upon reallocations and the additional MTR procurement ordered in D.23-02-040, SDG&E's MTR procurement requirement is 83 MW online by August 1, 2023; 248 MW online by June 1, 2024; 62 MW online by June 1, 2025; 72 MW online by June 1, 2026; 72 MW online by June 1, 2027; and 83 MW of long lead time resources by June 1, 2028. This procurement requirement is inclusive of a minimum of 103 MW of zero-emitting capacity required to be online by 2025, to replace capacity retiring at Diablo Canyon.

SDG&E launched its MTR IRP Request for Offers (RFO) on September 30, 2021. A single solicitation was conducted to procure resources for all required online delivery dates specified in D.21-06-035. Under the solicitation, SDG&E sought offers for zero-emitting or Renewable Portfolio Standard-eligible resources, including stand-alone renewable resources able to generate during net peak hours, renewable generation paired with energy storage, or stand-alone energy storage. Additionally, projects were required to be eligible for system resource adequacy (full capacity deliverability status), and were required to be incremental to the baseline resources identified by the Commission, as required in D.21-06-035. [1]

SDG&E conducted outreach to potential offerors of the RFO and notified over 6,100 recipients via email notification of the launch. SDG&E accepted offers for the initial RFO (launched on September 30, 2021) through November 19, 2021, and received 196 offers. SDG&E notified shortlisted offerors on February 11, 2022. SDG&E reopened the RFO on April 26, 2022, for submission of new offers and/or updates to previously submitted offers, with a particular interest in offers to come online by August 1, 2023. SDG&E accepted offers for the reopened RFO through May 11, 2022, and received 50 offers.

After the conclusion of the solicitation's initial evaluation phase in February 2022, SDG&E's shortlist continued to evolve due to various factors. Some bidders dropped out of the shortlist due to already being in discussions with other LSEs, or having failed to receive anticipated deliverability allocations from the California Independent System Operator (CAISO). Other bidders cited inability to hold their as-bid prices or online dates due to ongoing supply chain constraints, volatility in commodity prices for lithium carbonate and metals used in manufacturing lithium-ion batteries. SDG&E and selected parties negotiated price adjustments to address the changed circumstances since bid submissions.[2] Additionally, SDG&E gave all respondents the opportunity to refresh pricing and project characteristics and found that the final negotiated prices in the four contracts eventually selected appeared to accurately reflect the evolving market conditions experienced by all bidders. Further, the four projects remained the Least-Cost/Best-Fit (LCBF) solution despite the price adjustments relative to the initial November 2021 offers.[3]

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[1] SDG&E AL 4189-E at 5-6.
[2] SDG&E AL 4189-E at 8.
[3] SDG&E AL 4189-E at 9.

To evaluate MTR IRP RFO offers, SDG&E used its LCBF methodology consisting of a conformance screen and Net Market Value (NMV) calculation. The conformance screen required resources to meet D.21-06-035 requirements, in addition to assessing completeness, requiring site control for the duration of the delivery term of the proposed project at the time of offer submittal, and prohibiting projects already expecting to receive additional Commission funding. The NMV calculations were based on a cost/benefit analysis, where net present value benefits were measured in value streams from resource adequacy, energy, ancillary services, and renewable energy credits attributes, and net present value costs were measured in cost streams from resource adequacy, energy, variable operations & maintenance expenses, and transmission upgrade attributes.[4]

SDG&E discussed the RFO, shortlist, and status of contract negotiations with its Cost Allocation Mechanism Procurement Review Group (CAM PRG) on several occasions from October 2021 to March 2023. SDG&E assigned PA Consulting, a Commission-approved Independent Evaluator (IE), as the IE for the MTR IRP RFO. SDG&E states that PA Consulting reviewed and evaluated the planning of the solicitation, participated in the pre-offer webinar, reviewed offers, assisted in shortlist development, was included in all written/verbal communication with offerors, and attended contract negotiations.[5]

The contracts for which SDG&E seeks approval in Advice Letter (AL) 4189-E are summarized in the table below:

[4] SDG&E AL 4189-E Attachment A at 2-3.
[5] SDG&E AL 4189-E at 9.

Project Name (Developer)	Resource Type	Contract Type	Capacity	Term	Commercial Operation Date
Yellow Pine Solar III Hybrid (NextEra)	Hybrid	As-Available Energy (Solar) and Toll (Battery)	65 MW solar; 50 MW storage (derated to 40 MW for 5-hour duration)	15 years	6/1/2025
Luna Valley Solar (Clearway)	Solar/Contractual Hybrid	As-Available Energy	91 – 113.5 MW[6]	15 years	6/1/2025
Daggett Storage (Clearway)	Storage/Contractual Hybrid	Toll	113.5 MW (derated to 91 MW for 5-hour duration)	15 years	6/1/2025
Nova Power Bank Storage (Calpine)	Storage	Toll	60 MW	15 years	4/1/2026

Yellow Pine Solar III is a hybrid solar photovoltaic with lithium-ion battery project procured to meet zero-emitting Diablo Canyon replacement requirements. Nova Power Bank is a standalone lithium-ion battery storage project. Luna Valley Solar and Daggett Storage, a photovoltaic project and lithium-ion battery project, respectively, are contractually paired to act as a hybrid zero-emitting resource to meet Diablo Canyon replacement requirements. The storage resources are expected to be available every day from 5 P.M. to 10 P.M. at a minimum and deliver for five consecutive hours.

In accordance with Ordering Paragraph (OP) 14 of D.20-08-046, the contracts between SDG&E and the counterparties include a representation and warranty that the seller has considered long-term climate change risks to the project, and counterparties have further agreed to provide SDG&E copies of their respective climate risk plans identifying risks and vulnerabilities to the project associated with climate change and plans to mitigate such risks. SDG&E states that the sellers' schedules to provide these

[6] Details regarding this range of MW are included in the confidential contract.

plans are beyond the date of AL 4189-E, and SDG&E will use "reasonable efforts to obtain this information from sellers and provide Energy Division a copy" when available.[7] Furthermore, the Inflation Reduction Act, which was passed after shortlisting, included some provisions that would make stand-alone storage Investment Tax Credit-eligible. SDG&E structured relevant agreements to incentivize counterparties to seek the domestic bonus adjustment through the IRA.[8]

For the resources with 2025 online dates (Yellow Pine Solar III, Luna Valley Solar, and Daggett Storage), in accordance with D.21-06-035, SDG&E proposes to allocate the costs associated with the contracts to applicable customers, which includes bundled service customers and departing load customers with 2021 vintage cost responsibility, using the Portfolio Allocation Balancing Account (PABA) in accordance with SDG&E's AL 4018-E. Recoverable costs will include incremental administrative costs.[9]

For the Nova Power Bank resource, which has an online date in 2026, SDG&E in accordance with D.23-02-040 proposes to allocate the costs associated with the contract to applicable customers, which includes bundled service customers and departing load customers with 2023 vintage cost responsibility, using the PABA.[10]

NOTICE

Notice of SDG&E AL 4189-E was made by publication in the Commission's Daily Calendar. SDG&E states that a copy of the AL was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

SDG&E AL 4189-E was timely protested by the Public Advocates Office at the California Public Utilities Commission (Cal Advocates) on May 4, 2023. Cal Advocates recommends that the Commission reject the Nova Power Bank contract, cap the Daggett Storage contract price, and consider current market conditions and trends when approving or rejecting MTR contracts. Cal Advocates points to the commodity price of lithium carbonate, which rose significantly in 2022 and peaked late in the year but has since fallen more than 60 percent between January and April 2023. Cal Advocates states

[7] SDG&E AL 4189-E at 11.
[8] SDG&E AL 4189-E, IE Report at 29.
[9] SDG&E AL 4189-E at 11.
[10] SDG&E AL 4189-E at 11.

that lithium carbonate prices are now more than 70 percent below the November 2022 peak.[11]

With regards to the Nova Power Bank contract, Cal Advocates states that SDG&E's justification of the shortlisting, execution, and request for approval of the contracts in AL 4189-E, which SDG&E based upon its calculation of positive NMVs in its LCBF valuation, is flawed because SDG&E's methodology overvalues ancillary service benefits in the tolling contracts, which results in inflated NMV values.

Cal Advocates further states that while the Commission has recognized this deficiency and directed SDG&E to consider updates to its methodology, SDG&E has failed to do so and thus the Commission should disregard SDG&E's claims of reasonableness based on positive NMVs.

Finally, Cal Advocates states that the Nova Power Bank contract has a commercial operation date (COD) of April 1, 2026, and with a three-year lead time, SDG&E has sufficient time to renegotiate this contract or procure other contracts that better align with current market conditions while continuing to meet its 2026 MTR requirements.[12]

With regards to the Daggett Storage contract, Cal Advocates points to a provision in the contract that would adjust the price in the event that a particular subsidy is not granted to the developer, Clearway. Cal Advocates states that SDG&E, rather than ratepayers, should bear the risk of the contract's price uncertainty, and thus, the Commission should cap the contract's price.[13]

SDG&E timely replied to Cal Advocates' protest on May 11, 2023. SDG&E states that while Cal Advocates is correct that lithium index pricing has decreased, Cal Advocates fails to consider other cost drivers, such as "lingering supply chain constraints as well as knock-on effects from rising inflation, impacting assumptions around balance of system costs, labor, rising interest, and insurance rates and financing costs."

Additionally, SDG&E cites a March 2023 California Energy Commission report on the Diablo Canyon Power Plant Extension, which states that "there are several supply chain issues affecting clean energy development" and "all parts of the supply chain have

[11] Cal Advocates Protest at 6-7.
[12] Cal Advocates Protest at 8-9.
[13] Cal Advocates Protest at 9.

experienced inflationary pressures, not just panels and batteries, but also cement, transformers, and other balance of plant equipment."[14]

In response to Cal Advocates' recommendation that the Commission reject the Nova Power Bank contract, SDG&E states that the contract price is comparable to other previously approved stand-alone storage MTR contracts. Further, SDG&E states Cal Advocates' argument that the three-year lead time to commercial operation is enough time to renegotiate the contract or procure other contracts is misplaced because Cal Advocates fails to demonstrate that market prices have decreased and that Cal Advocates' assumption that capacity prices will be lower in the near future is "speculative and unsubstantiated." Additionally, SDG&E notes that the Nova Power Bank is the fifth and final phase of the larger Nova Power project and is already in construction.[15]

In response to Cal Advocates' recommendation that the Commission disregard SDG&E's claims of cost reasonableness based on positive NMVs because SDG&E has failed to update its valuation methodology, SDG&E states that revising the methodology in the middle of the MTR procurement process is inappropriate and impractical because it would require a refreshed evaluation for all offers in its MTR RFO, including the already approved Tranche 1 contracts approved in Resolution E-5250, and would significantly delay SDG&E's planned timeline to contract resources and ensure they are online to meet Commission-required online dates.[16]

Finally, in response to Cal Advocates' recommendation that the Commission cap the Daggett contract price, SDG&E states that there is only "one narrow and clearly defined variable condition" that is not within the control of Daggett or SDG&E, which is contrary to Cal Advocates' claim that the contract price is "highly variable and uncertain."[17]

DISCUSSION

The Commission has reviewed SDG&E AL 4189-E, Cal Advocates' protest, and SDG&E's reply and finds that SDG&E's request for approval of the four MTR contracts presented in AL 4189-E is reasonable.

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[14] SDG&E Reply to Cal Advocates Protest at 2.
[15] SDG&E Reply to Cal Advocates Protest at 2-3.
[16] SDG&E Reply to Cal Advocates Protest at 3-4.
[17] SDG&E Reply to Cal Advocates Protest at 4.

Consistency with D.21-06-035 and D.23-02-040

We find that SDG&E AL 4189-E is consistent with D.21-06-035. As directed in the decision, SDG&E filed a Tier 3 AL seeking approval for cost recovery for the four MTR contracts described herein.

The MTR contracts are for 379.5 – 402 MW of nameplate capacity, with expected online dates in June 2025 and April 2026.[18] The Yellow Pine Solar III resource is a zero-emitting hybrid resource and its storage component is expected to deliver continuous power, at a minimum, daily from 5 P.M. to 10 P.M. Similarly, the Luna Valley and Daggett Storage resources are zero-emitting and contractually paired, and are expected to deliver continuous power, at a minimum, daily from 5 P.M. to 10 P.M. These three contracts are expected to help SDG&E's meet its Diablo Canyon replacement requirements as described in D.21-06-035.[19] The Nova Power Bank resource is a stand-alone storage resource and is expected to help meet SDG&E's 2026 MTR requirements as ordered in D.23-02-040.

Additionally, these MTR contracts satisfy the 10-year or more delivery requirement.[20]

Procurement Methodology, Evaluation, and Cost Reasonableness

SDG&E launched its MTR IRP RFO on September 30, 2021 to solicit offers to procure incremental resources to meet its MTR procurement requirements.

SDG&E retained PA Consulting as the IE for its MTR solicitation efforts. PA Consulting reviewed and evaluated the planning of the solicitation, participated in the pre-offer webinar, reviewed offers, assisted in shortlist development, was included in all written/verbal communication with offerors, and attended contract negotiations. In the IE Report attached to AL 4189-E, PA Consulting provides an evaluation of SDG&E's outreach efforts, LCBF methodology design, shortlist, and project negotiations; overall, PA Consulting states that it believes these were reasonable and resulted in the most appropriate offers for projects coming online in 2025 and 2026 from those submitted for

[18] The September NQC values that will ultimately apply to SDG&E's MTR obligations will be determined at a later time.
[19] D.21-06-035 at 44.
[20] D.21-06-035 at 70.

SDG&E's IRP RFO. PA Consulting thus recommends the Commission's approval of the four contracts. [21]

We have reviewed SDG&E's IRP RFO evaluation methodology and the IE Report. We agree with PA Consulting's finding that SDG&E selected the most appropriate offers for projects coming online in 2025 and 2026 from its RFO.

With regards to Cal Advocates' concerns about lithium carbonate prices, we note that the recent price drop of lithium carbonate does not guarantee sustained lowered prices throughout the process of renegotiating an existing contract or pursuing a new contract. Additionally, developers may already have battery agreements in place for resources coming online in the 2025-2026 timeframe. We also agree with SDG&E that these prices are not the only factor in storage resource costs, and lowered lithium carbonate prices are not guaranteed to significantly lower overall contract prices. In light of the aforementioned as well as the time and resources required to renegotiate existing contracts or negotiate new contracts, the likelihood that doing so would result in a net benefit for ratepayers is speculative. We decline to require SDG&E to do so given it could increase the risk of capacity shortfalls in light of the tight timelines to bring sufficient capacity online to meet MTR requirements.

Cal Advocates notes that SDG&E has not updated its methodology for ancillary service benefits as directed in Resolution E-5250 and recommends that the Commission disregard any claims made by SDG&E that the contracts should be approved based upon positive NMVs. In response, SDG&E states that revising its valuation methodology and updating the model in the middle of the MTR procurement process would be inappropriate and impractical for Tranche 1 and 2 valuations, but that SDG&E is currently starting the process to improve and update the methodology and model before procuring the next tranche of MTR resources. As we noted in Resolution E-5250, we find merit in Cal Advocates' concerns regarding SDG&E's valuation methodology. While we understand SDG&E's reluctance to revise the methodology at this time, as it would possibly result in a delay in the procurement of necessary resources, we reiterate the importance of updating the methodology in a timely manner for future RFO bid evaluations. While we decline to reject the storage contracts herein, we direct SDG&E to coordinate closely with PRG members on ongoing updates to its methodology and expect these updates to have been implemented in time for upcoming tranche procurement solicitations.

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[21] SDG&E AL 4189-E, IE Report at 32.

Finally, we decline to cap the Daggett Storage contract as Cal Advocates recommends. As SDG&E notes, the situation in which the contract price would rise is one narrow condition, and is not highly variable or uncertain. Additionally, the price to which the Daggett Storage contract would rise under this condition is still in line with other stand-alone storage contracts approved under MTR.

Cost Recovery

The MTR decision authorized cost recovery of the MTR procurement via the power charge indifference adjustment (PCIA):

> To the extent that any resources procured in response to this order are subject to allocation using the [PCIA], the date of that adjustment shall be vintaged by the date of this order. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall each file Tier 2 advice letters to update their balancing accounts to address the PCIA treatment as a result of this order.[22]

SDG&E submitted AL 4018-E on June 1, 2022, to modify its PABA in compliance with OP 12 of D.21-06-035, and AL 4208-E on April 24, 2023, to modify its PABA in compliance with OP 4 of D.23-02-040. Both of these ALs have been accepted by the Commission's Energy Division. Accordingly, SDG&E requests to recover the costs of the Yellow Pine Solar III, Luna Valley Solar, and Daggett Storage contracts via the 2021 vintage sub-account of the PABA. For the Nova Power Bank contract, SDG&E requests to recover the costs via the 2023 vintage sub-account of the PABA. Through this cost recovery methodology, the costs and benefits associated with this procurement complying with D.21-06-035 and D.23-02-040 will be recovered from applicable customers, which includes bundled customers and departing load customers with 2021 and 2023 vintage cost responsibility, respectively.

We find SDG&E's proposed cost recovery of the MTR contracts to be consistent with OP 12 of D.21-06-035, OP 4 of D.23-02-040, and Energy Division's approval of AL 4018-E and AL 4208-E.

[22] D.21-06-035 OP 12.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this Resolution must be served on all parties and subject to at least 30 days public review. Any comments are due within 20 days of the date of its mailing and publication on the Commission's website and in accordance with any instructions accompanying the notice. Section 311(g)(2) provides that this 30-day review period and 20-day comment period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day review and 20-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments on July 10, 2023. No comments on the draft resolution were received.

FINDINGS

1. SDG&E's share of the MTR procurement requirement is 83 MW online by August 1, 2023; 248 MW online by June 1, 2024; 62 MW online by June 1, 2025; 72 MW online by June 1, 2026; 72 MW online by June 1, 2027; and 83 MW of long lead time resources by 2028. This procurement requirement is inclusive of a minimum of 103 MW of zero-emitting capacity required to be online by 2025, to replace capacity retiring at Diablo Canyon Power Plant.
2. By AL 4189-E, filed on April 14, 2023, SDG&E has submitted for approval four contracts that are intended to partially meet SDG&E's D.21-06-035 and D.23-02-040 requirements.
3. The four contracts total 379.5 – 402 MW in nameplate capacity.
4. SDG&E's methodology used to evaluate the bids in the competitive solicitation that resulted in the contracts presented in SDG&E AL 4189-E is overall reasonable.
5. The MTR contracts presented in SDG&E AL 4189-E are reasonable based on the robust competitive solicitation and bid evaluation methodology.
6. SDG&E's request in SDG&E AL 4189-E to allocate the benefits and costs of the four MTR contracts to all applicable customers via the PABA 2021 or 2023 vintage sub-accounts is reasonable.

THEREFORE IT IS ORDERED THAT:

1. The request of San Diego Gas & Electric for approval of four mid-term reliability contracts and related costs, as requested in Advice Letter 4189-E, is approved.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed, and adopted at a conference of the Public Utilities Commission of the State of California held on August 10, 2023; the following Commissioners voting favorably thereon:

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Rachel Peterson
Executive Director